THE CLAIMS:

The status of the claims is as follows:

1. (previously presented) A suspension for a disk drive, comprising:

a suspension load beam having a dimple; and

a laminated flexure coupled to the suspension load beam, the flexure having a surface adapted to receive a slider and a surface adapted to contact the dimple, the flexure including a head-disk interaction sensor outputting a sensor signal when the slider contacts a disk of the disk drive.

2. (previously presented) The suspension according to claim 1, wherein the head-disk interaction sensor is an accelerometer sensing an acceleration of the flexure generated by the slider contacting the disk of the disk drive.

3. (previously presented) The suspension according to claim 2, wherein the head-disk interaction sensor further includes a pressure sensor sensing a pressure between the flexure and the dimple generated by the slider contacting the disk of the disk drive.

4. (previously presented) The suspension according to claim 2, wherein the accelerometer includes a piezoelectric material layer and a conductive material layer, the piezoelectric material layer and the conductive material layer each being formed as a layer of the

laminated flexure and each being patterned to substantially correspond to a top surface of a back portion of the slider.

5. (previously presented) The suspension according to claim 1, wherein the head-disk interaction sensor is a pressure sensor sensing a pressure between the flexure and the dimple generated by the slider contacting the disk of the disk drive.

6. (previously presented) The suspension according to claim 5, wherein the pressure sensor includes a piezoelectric material layer and a conductive material layer, the piezoelectric material layer and the conductive material layer each being formed as a layer of the laminated flexure and each being patterned to substantially correspond to a surface region of the flexure corresponding to the dimple.

7. (previously presented) The suspension according to claim 6, wherein the piezoelectric material layer generates a voltage between a top portion and a bottom portion of the piezoelectric material layer when the slider contacts the disk of the disk drive, the voltage generated between the top portion and the bottom portion of the piezoelectric material layer corresponding to a magnitude of a force with which the slider contacts the disk of the disk drive.

8. (previously presented) The suspension according to claim 6, wherein the piezoelectric material layer and the conductive material layer are patterned to be a substantially square shape.

9. (previously presented) The suspension according to claim 6, wherein the piezoelectric material layer and the conductive material layer are patterned to be a substantially circular shape.

10. (previously presented) The suspension according to claim 5, wherein the pressure sensor includes a piezoelectric material layer and a conductive material layer that are each formed as a layer of the laminated flexure, the piezoelectric material layer and the conductive material layer each being patterned to form a first region and a second region, the first and second regions respectively corresponding to a front portion and a back portion of the slider and respectively corresponding to first and second surface regions of the surface of the flexure adapted to contact the dimple.

11. (previously presented) The suspension according to claim 10, wherein the first region of the piezoelectric material layer generates a first voltage between a top portion and a bottom portion of the first region of the piezoelectric material layer when the slider contacts the disk of the disk drive, the second region of the piezoelectric material layer generates a second voltage between a top portion and a bottom portion of the second region of the piezoelectric

material layer when the slider contacts the disk of the disk drive, the first and second voltages respectively generated between the top portions and the bottom portions of the first and second regions of the piezoelectric material layer each corresponding to a magnitude of a force with which the slider contacts the disk of the disk drive, and

wherein a pitch mode of the slider is determined based on a difference between the first voltage and the second voltage.

12. (previously presented) The suspension according to claim 10, wherein the first region of the piezoelectric material layer generates a first voltage between a top portion and a bottom portion of the first region of the piezoelectric material layer when the slider contacts the disk of the disk drive, the second region of the piezoelectric material layer generates a second voltage between a top portion and a bottom portion of the second region of the piezoelectric material layer when the slider contacts the disk of the disk drive, the first and second voltages respectively generated between the top portions and the bottom portions of the first and second regions of the piezoelectric material layer each corresponding to a magnitude of a force with which the slider contacts the disk of the disk drive, and

wherein a first bending mode of a body of the slider body can be determined based on a sum of the first and second voltages.

13. (previously presented) The suspension according to claim 1, further comprising a write-inhibit circuit responsive to the sensor signal by inhibiting a write operation of the disk drive.

14. (previously presented) The suspension according to claim 13, wherein the write-inhibit circuit includes a filter circuit conditioning the sensor signal.

15. (previously presented) The suspension according to claim 14, wherein the filter circuit is a low-pass filter having a passband that is greater than about 20 kHz.

16. (previously presented) The suspension according to claim 14, wherein the filter circuit is a high-pass filter having a passband that is less than about 2 MHz.

17. (previously presented) The suspension according to claim 14, wherein the filter circuit is a bandpass filter having a passband between about 20 kHz and about 2 MHz.

18. (previously presented) The suspension according to claim 14, wherein the filter circuit is a bandpass filter having a passband corresponding to about a pitch frequency of the slider.

19. (previously presented) The suspension according to claim 14, wherein the filter circuit is a passband filter having a narrow passband at about 200 kHz.

20. (previously presented) The suspension according to claim 14, wherein the filter circuit is a bandpass filter having a passband corresponding to about a bending mode frequency of a body of the slider.

21. (previously presented) The suspension according to claim 14, wherein the filter circuit is a passband filter having a narrow passband at about 1.6 MHz.

22. (previously presented) The suspension according to claim 14, wherein the filter circuit is a passband filter having a passband that includes about 200 kHz and about 1.6 MHz.